The Ruth H. Hooker Research Library

and Technical Information Center

InfoNet: Library Capabilities Reach Scientists' Desktops

- **Introduction**

  In August 1992, the Ruth H. Hooker Research Library and Technical Information Center introduced the InfoNet, a networked information system for NRL researchers and administrators. The InfoNet is available to all NRL employees and on-site contractors with NICEnet connectivity. It enables them to use their desktop computers or terminals to obtain information when and where they need it.

  The InfoNet allows users to query local and remote information systems and enables them to request Library materials and services without leaving their office. The InfoNet presents users with a single menu from which they can select a wide variety of information resources including: (1) library-mounted CD-ROM databases such as Inspec, Science Citation Index and more than 12 others; (2) other Laboratory databases including the Library catalog and LABMIS files; and (3) resources located throughout the world through pre-programmed access to selected Internet hosts.

  The InfoNet has succeeded in demonstrating that end users in their offices, using any computing platform, can directly use a single menu-driven interface to access a wide spectrum of information resources. Use of the InfoNet has increased steadily since December 1992. During March, 2,739 accesses to 25 different products were recorded (Figure 1) reflecting the following usage: End-user remote access - 2,109; end-user in-library access - 458; mediated searches conducted by library staff for users - 172. Fifteen percent of InfoNet use occurs during hours when the Library is closed.

  - **Mandate for InfoNet**

    The InfoNet was developed in response to item 15 of the 1990 report of the Computer Strategic Unit's Working Group on Networking, which calls for uniform access to NRL and external computer databases. Also driving the development of the InfoNet was a user needs analysis conducted by the Library in the summer of 1990. As a result of interviews with 46 individuals representing a cross section of research interests, the Library learned that users first of all wanted to access information resources from their own computers and workstations. They wanted a system that would:
    - Provide subject and author access to journal articles as well as books;
    - Allow users to request materials as part of an online search;
    - Offer access to multiple databases, both bibliographic and informational;
    - Store full text files, such as journal articles or handbooks, for downloading;
    - Provide access to the catalogs of other libraries and to external databases;
    - Offer electronic document delivery from libraries or information providers.

  - **How InfoNet Works**

    The InfoNet can be accessed from anywhere on NRL's campus-wide network, regardless of computing platform. In brief, the InfoNet links to the FDDI/Ethernet campus backbone primarily using the TCP/IP suite of protocols. UNIX workstations and dumb terminals use native Telnet to access the

InfoNet while computers which lack native TCP/IP support, e.g. MS-DOS users, use free Telnet software distributed by the library and modified for InfoNet usage. Macintosh users take advantage of native AppleTalk protocols to access the InfoNet and are supplied with software distributed by the library for AppleTalk connectivity. The InfoNet consists entirely of off-the-shelf PC hardware and software, with a few minor software modifications.

Future of InfoNet

Off-site Access.

Because of limitations imposed by the publishers of many of the CD-ROM products offered on the InfoNet, services have been available only to residents of the NRL-DC campus. At the request of the NRL Commanding Officer, the Library has renegotiated license agreements to extend InfoNet services to NRL facilities in Orlando, Monterey, and Stennis. It has also arranged to provide dial-in access as requested by many NRL researchers who need information while working in their homes, at conferences, or on stand-alone machines or networks without NICEnet connectivity.

Support for Images.

While the InfoNet can meet many needs of the NRL research community for convenient and reliable access to scientific and technical information, it currently handles only text files. This limitation precludes network access to the ever- increasing number of CD-ROM products that combine text and images. It restricts access to other important scientific and technical information, including over 50,000 research reports the Library has stored on optical disk. The Library is therefore experimenting with imaging capabilities for the InfoNet to network image-based information, currently available only within the Library, to users at their workstation or microcomputer.

Document Delivery.

To provide NRL researchers not only with information about published articles but with the article itself, the Library is exploring electronic document delivery. The OCLC FirstSearch system on the InfoNet already offers the potential for facsimile delivery. Another option is delivery of documents over the Internet, which retains higher quality images.

Electronic Journals.

In response to a mandate from the Director of Research, the Library is working with a number of professional societies and other publishers to provide access for NRL researchers to journals in electronic format.

Benefits of InfoNet

To demonstrate the benefits of such an information system, it may help to describe how a working NRL scientist might use such a system once it is fully mature to locate and retrieve electronic information. As a starting point, picture a scientist working at his computer writing a research paper. He gets to a point where he needs more information about the work of a colleague. The scientist is able to immediately query the InfoNet to identify articles written by the colleague, read online abstracts to assess their relevance, determine if the articles are available from the NRL library or from some other source, and request delivery over the network. If an electronic version of the needed paper exists he can have it immediately, completing the entire cycle of library research in a matter of minutes.

Such immediate access to information can support work flow, improve productivity and enhance creativity. Furthermore, it has the potential for eliminating the problems associated with doing without information, a danger whenever information is difficult to obtain. The results of doing without information include: duplicative research, "reinventing the wheel," use of out-dated or erroneous data and failure to follow up on ideas and associations with the potential for pay-off.

Interest in the potential of such prototype system for organizing electronic resources and assisting

users in accessing them has been expressed by numerous visitors from the libraries of Navy and other military labs, government organizations, congressional agencies, universities, professional associations and corporations, who have come to see the InfoNet demonstrated and to discuss how to implement such a system in their own organizations.

- **Connecting to InfoNet**

  The InfoNet is accessible anywhere throughout the NRL main campus. All that is required is a computer and a connection to NICEnet.

  Free connectivity software for PCs and Macintosh computers is provided by the library and is available online from the Public Domain Software Collection. For information on configuring computers to access the InfoNet and on acquiring the access software, call the Library's Microcomputer Software Support Center at x4-7707. For information on connecting to NICEnet, call the Research Computation Division at x7-3903.

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